

ABSTRACT OF THE DISCLOSURE

Disclosed is a residual stress measuring system for measuring the residual stress in an optical fiber. The residual stress measuring system comprises a light source for generating light used to measure the residual stress, a lens system for converting the generated light into a plane wave, a polarimeter for transforming the converted light to an input polarized light, which is incident on the optical fiber, a rotational measuring section for rotating the optical fiber so as to enable the polarized light to transmit through the optical fiber in various directions, and a detector for detecting the residual stress from a phase shift of the transmitted light.